Amendment
Serial No. 09/830,108

Docket No. PHNL-000153

IN THE CLAIMS:

Kindly replace the claims with the following:

1. (Currently amended) A method of coding (2) a signal (S) comprising blocks of values to obtain a scalable bit-stream (O,BS), the method comprising the steps of:

representing (20) each block as a sequence of bit planes (BP), wherein most significant bits of the values form a most significant bit plane (BP_{MSB}) and respective less significant bits of the values form respective less significant bit planes; and

scanning and transmitting (21,23) ~~the~~ significant coefficients values in an order of decreasing bit plane (BP) significance;

wherein for each bit plane the step of scanning and transmitting (21,23) is performed in a rectangular scan zone (R_{MAX}, C_{MAX}) starting from a corner of the block, wherein R_{MAX} represents a maximum row number and C_{MAX} represents a maximum column number and are determined as the outermost positions of the determination of newly significant coefficients within each bit plane.

2. (Currently amended) The ~~A~~ method as claimed in claim 1, wherein the values are transform coefficients.

3. (Currently amended) The ~~A~~ method as claimed in claim 1, wherein the coding (2) is performed on each block individually to obtain respective scalable bit-streams for respective individual blocks.

4. (Currently amended) The ~~A~~ method as claimed in claim 1,

wherein the step of scanning and transmitting (21,23) comprises:

initially marking (22) all values insignificant; and

performing the following steps for each bit-plane ($BP_{MSB}...BP_{LSB}$) until a stop criterion is met:

3

Amendment   Docket No. PHNL-000153
Serial No. 09/830,108

- transmitting (22,23) a bit for each significant value (SC) in a current bit plane (BP);

- transmitting (21,23) an indication whether or not any insignificant values become newly significant in the current bit plane; and

- selecting and transmitting (21,23) dimensions of the rectangular scan zone (R_{MAX}/C_{MAX}) for the newly significant values in the current bit plane, followed by an indication for each not previously significant value inside the scan zone whether the value has become newly significant (NSC) and a sign bit for each newly significant value (NSC).

5. (Currently amended) The A method as claimed in claim 4,

wherein parts of the bit-stream representing the newly significant values (NSC) are entropy coded.

6. (Currently amended) The A method as claimed in claim 3,

wherein a scalable bit-stream is obtained by cyclically and sequentially scanning selected parts (P1,P2,...) of the respective scalable bit-streams (DCT_1...DCT_N) of the respective individual blocks.

7. (Currently amended) A device (2) for coding (2) a signal (S) comprising blocks of values to obtain a scalable bit-stream (O,BS), the device comprising:

means for representing (20) each block as a sequence of bit planes (BP), wherein most significant bits of the values form a most significant bit plane (BP_{MSB}) and respective less significant bits of the values form respective less significant bit planes; and

means for scanning and transmitting (21,23) the values in an order of decreasing bit plane (BP) significance;

wherein for each bit plane the means for scanning and transmitting (21,23) have been arranged to perform the scanning and transmitting for each bit plane in a rectangular scan zone (R_{MAX}, C_{MAX}) starting from an upper left corner of the block

4

Amendment
Serial No. 09/830,108

Docket No. PHNL-000153

wherein R_{MAX} represents a maximum row number and C_{MAX} represents a maximum column number and are determined as the outermost positions of the determination of newly significant coefficients within each bit plane.

8. (Currently amended) ~~An encoder (9) comprising:~~

a~~The~~ device (93) as claimed in claim 7; ~~and further comprising:~~

a truncator (95) for truncating the scalable bit-stream (O,BS) at a certain bit-rate.

9. (Currently amended) ~~An encoder (5,7) comprising:~~

a ~~The~~ device (54,76) as claimed in claim 7; ~~and~~ further comprising:

a memory (55,78) for storing a previous frame;

~~the device (54,76) being arranged to furnish~~ wherein the scalable bit-stream (O,BS) is furnished to the memory (55,78).

10. (Currently amended) A camera system comprising:

a camera (4); and

an encoder for coding (2) a signal (S) comprising blocks of values to obtain a scalable bit-stream (O,BS), the device comprising:

means for representing (20) each block as a sequence of bit planes (BP), wherein most significant bits of the values form a most significant bit plane (BP$_{MSB}$) and respective less significant bits of the values form respective less significant bit planes; and

means for scanning and transmitting (21,23) the values in an order of decreasing bit plane (BP) significance;

wherein for each bit plane the means for scanning and transmitting (21,23) have been arranged to perform the scanning and transmitting for each bit plane in a rectangular scan zone (R_{MAX}, C_{MAX}) starting from an upper left corner of the block, wherein R_{MAX} represents a maximum row number and C_{MAX} represents a maximum column number and are determined as the outermost

5

Docket No. PHNL-000153

positions of the determination of newly significant coefficients within each bit plane.

11. (Currently amended)   A method of decoding (11) comprising:

receiving (111) a scalable bit-stream (O,BS) comprising blocks of values, the values for each block being available in an order of decreasing bit plane significance and for each bit plane scanned in a rectangular scan zone (R_{MAX}, C_{MAX}) starting from an upper left corner of the block, wherein R_{MAX} represents a maximum row number and C_{MAX} represents a maximum column number and are determined as the outermost positions of the determination of newly significant coefficients within each bit plane;

regenerating (112) the blocks of values from the scalable bit-stream (O,BS); and

decoding (113-115) the blocks of values.

12. (Currently amended)   A scalable decoder (11) comprising:

means for receiving (111) a scalable bit-stream (O,BS) comprising blocks of values, the values for each block being available in an order of decreasing bit plane significance and for each bit plane scanned in a rectangular scan zone (R_{MAX}, C_{MAX}) starting from an upper left corner of the block, wherein R_{MAX} represents a maximum row number and C_{MAX} represents a maximum column number and are determined as the outermost positions of the determination of newly significant coefficients within each bit plane;

means for regenerating (112) the blocks of values from the scalable bit-stream (O,BS); and

means for decoding (113-115) the blocks of values.

13. (Currently amended)   ~~A receiver comprising:~~

~~a scalable decoder (11)~~ The decoder as claimed in claim 12 ~~; and~~ further comprising:

means for outputting (12) the decoded values.

6

Docket No. PHNL-000153

14. (Currently amended)   ~~A method for scanning a~~ A scalable bit-stream (BS) comprising blocks of values, the values for each block being available in an order of decreasing bit plane significance, said method comprising the step of:

for scanning each bit plane ~~scanned~~ in a rectangular scan zone (R_{MAX}, C_{MAX}) starting from an upper left corner of ~~the~~ a selected block, wherein R_{MAX} represents a maximum row number and C_{MAX} represents a maximum column number and are determined as the outermost positions of the determination of newly significant coefficients within each bit plane.

15. (Currently amended)   The method as recited in claim 14, wherein said ~~A storage medium (10) characterized in that a scalable~~ bit-stream (BS) ~~as claimed in claim 14~~ is recorded on ~~the~~ a storage medium (10).

7